Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1 – 14 (canceled)

Claim 15 (currently amended): A method for monitoring body temperatures in a plurality of herd animals for detection of bovine respiratory ~~disease~~ disease, comprising the steps of:

    a) providing each animal with a radio frequency identification transponder having a temperature sensor for sensing animal temperature;

    b) providing at least one radio frequency receiver and transmitter for transmitting radio frequency signals to said transponders and receiving radio frequency signals therefrom representative of animal temperature;

    c) providing a microcontroller having a memory for storing a plurality of temperature readings from all of said herd animals, said microcontroller providing an alarm indication when a temperature reading from any of said herd animals is above a predetermined maximum.~~; and~~

    ~~d) providing an alarm indication when a temperature reading from any herd animal is above a predetermined maximum.~~

Claim 16 (new): A system for monitoring body temperatures in a plurality of herd animals, said system comprising:

    a plurality of radio frequency identification transponders, each said transponder having a temperature sensor for sensing animal temperature, each herd animal provided with one of said radio frequency identification transponders, each transponder positioned such that said temperature sensor is in a viable sensing location for sensing the animal's temperature;

a reader/interrogator for:

transmitting radio frequency signals to said transponders;

receiving radio frequency signals from said transponders, said received radio frequency signals containing animal temperature data from said temperature sensors; and

demodulating said received radio frequency signals into animal temperature data; and

a microcontroller in communication with said reader/interrogator, said microcontroller for processing said animal temperature data and providing an alarm indication when temperature data for any herd animal is above a predetermined value.

Claim 17 (new): The system of claim 16, further comprising a memory for storing said animal temperature data, wherein said microcontroller is further for determining a baseline temperature for each animal by averaging said temperature data for each animal over time.

Claim 18 (new): The system of claim 17, wherein said microcontroller is further for providing an alarm indication when temperature data from any herd animal deviates a set percentage from said baseline temperature for said animal.

Claim 19 (new): The system of claim 18, wherein said microcontroller is further for adjusting said temperature data by employing a correction factor to adjust for the sensor location in each animal.